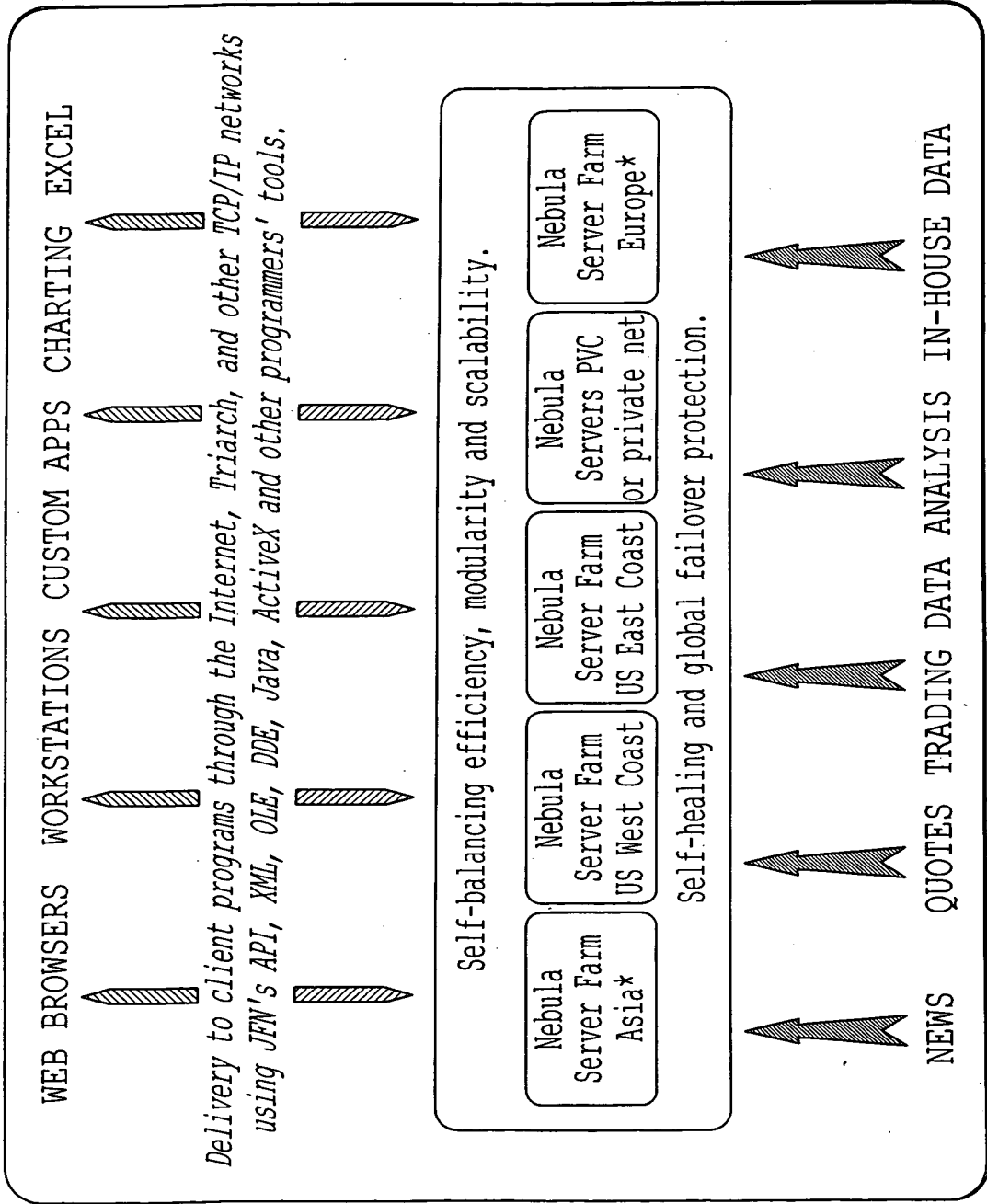


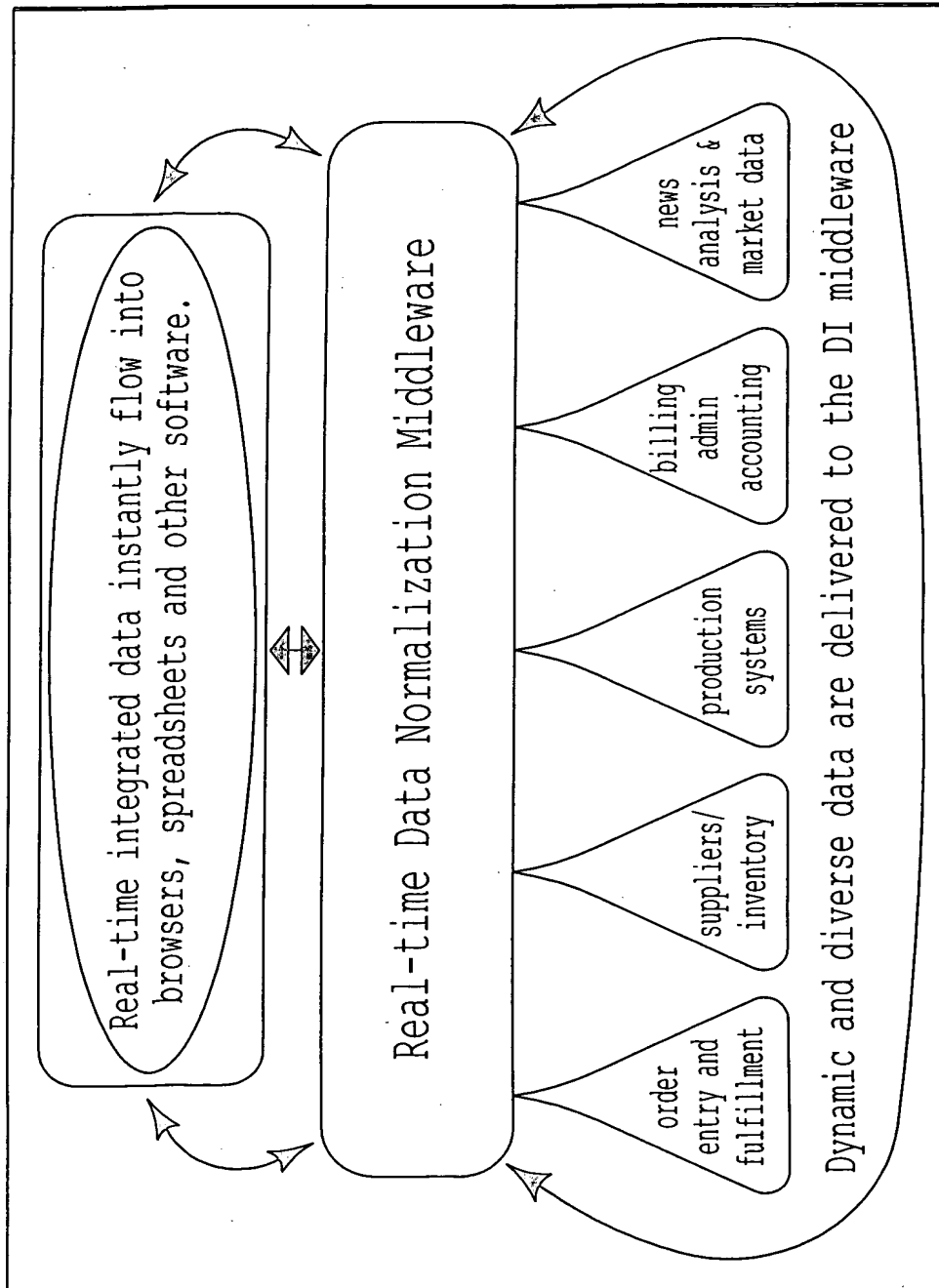
FIG. 2



MARKET DATA PROVIDERS COOPERATIVELY COMBINE AND SELL THEIR DATA
THROUGH JFN'S NEBULA MIDDLEWARE TO MULTIPLE CLIENT PROGRAMS ON
THE INTERNET AND PRIVATE NETWORKS.

FIG. 3

REAL-TIME DATA INTEGRATION WITH DI MIDDLEWARE



DI middleware dynamically integrates corporate data with data from outside sources through the Internet, extranets, wide area networks and local area networks.

FIG. 4

```
<!-- XEBULA XML TAGSET -->
- <!-- -->
- <!-- CLIENT TO API -->
_ <DIGIGRATOR>
  _ <XEBULA>
    <LOGIN username="" password="" appkey="" ip="" port=""
      services= "on/off" diags= "on/off" />
    <LOGOUT />
    <SERVICE id="" source="" sourcetype="" type="" />
    <GETQUOTEINFO id="" source="" alias="" symbol="" state=""
      type="" />
    _ <GETQUOTE id="" source="" alias="" symbol="" state=""
      type="">
      <FIELD>name of field</FIELD>
    </GETQUOTE>
    _ <STARTQUOTE id="" source="" alias="" symbol="" state=""
      type="">
      <FIELD>name of field</FIELD>
      - <!-- ***deprecated*** -->
    </STARTQUOTE>
    <STOPQUOTE id="" />
    _ <GETHEADLINES source="" hours="" stories="" mrdate=""
      mrtime="">
      _ <NEWSCODES>
        <NEWSCODE type="">codetext</NEWSCODE>
      </NEWSCODES>
    </GETHEADLINES>
    <GETSTORY id="" source="" date="" time="">headline text
      of story to get</GETSTORY>
    <GETFIXEDPAGE id="" source="" page="" />
    <STARTFIXEDPAGE id="" source="" page="" />
    <STOPFIXEDPAGE id="" />
  </XEBULA>
```

FIG. 5A

```
- <XEBULAINFO>
  <WHORU />
</XEBULAINFO>
- <XEBULAFILE>
  <SETFILE filename="">text to set</SETFILE>
  <GETFILE filename="" />
  <DELETEFILE filename="" />
  <GET DIR />
</XEBULAFILE>
- <!-- -->
- <!-- API TO CLIENT -->
- <XEBULA>
  <DIAG type="">(types-> error,connection,login,ack,nack,init)
    text of diagnostic</DIAG>
  <SERVICE id="" source="" sourcetype="" type="">"on" or
    "off"</SERVICE>
  <SESSION />
  <QUOTE id="" type="" field="" denom="">value/text of
    quote</QUOTE>
  <GETQUOTEEND id="" />
  <QUOTEINFO id="" source="" alias="" symbol="" state=""
    type="" />
  <QUOTEINFOEND />
- <HEADLINE source="" date="" time="" type="">
  headline text
  - <NEWSCODES>
    <NEWSCODE type="">codetext </NEWSCODE>
  </NEWSCODES>
</HEADLINE>
- <HEADLINECHANGE>
  - <HEADLINE source="" date="" time="" type="old">
    oldHeadlineText
  - <NEWSCODES>
```

FIG. 5B

```

    <NEWSCODE type="">codetext</NEWSCODE>
  </NEWSCODES>
</HEADLINE>
= <HEADLINE source="" date="" time="" type="new">
  newHeadlineText
  = <NEWSCODES>
    <NEWSCODE type="">codetext</NEWSCODE>
  </NEWSCODES>
</HEADLINE>
</HEADLINECHANGE>
<GETHEADLINESEND source="" />
= <STORY id="" date="" time="">
  story text
  = <STORYHEADLINE source="" date="" time="" type="">
    headline text
    = <NEWSCODES>
      <NEWSCODE type="">codetext</NEWSCODE>
    </NEWSCODES>
  </STORYHEADLINE>
</STORY>
= <FIXEDPAGE id="" row="" column="" type="">
  text to display
  <FPATTR start="" stop="" time="">name of
    attribute</FPATTR>
  </FIXEDPAGE>
</XEBULA>
= <XEBULAINFO>
  <TITLE>title</TITLE>
  <VERSION date="">version</VERSION>
  <COPYRIGHT>copyright</COPYRIGHT>
  <AUTHOR>name</AUTHOR>
</XEBULAINFO>

= <XEBULAFILE>
  <FILE filename="" found="yes/no">CDATA of text that was
    got</FILE>
  <DELETEFILE filename="" found="yes/no"/>
  = <DIR>
    <FILENAME>filename</FILENAME>
    <FILENAME>filename</FILENAME>
  </DIR>
</XEBULAFILE>
</DIGIGRATOR>
```

FIG. 5C

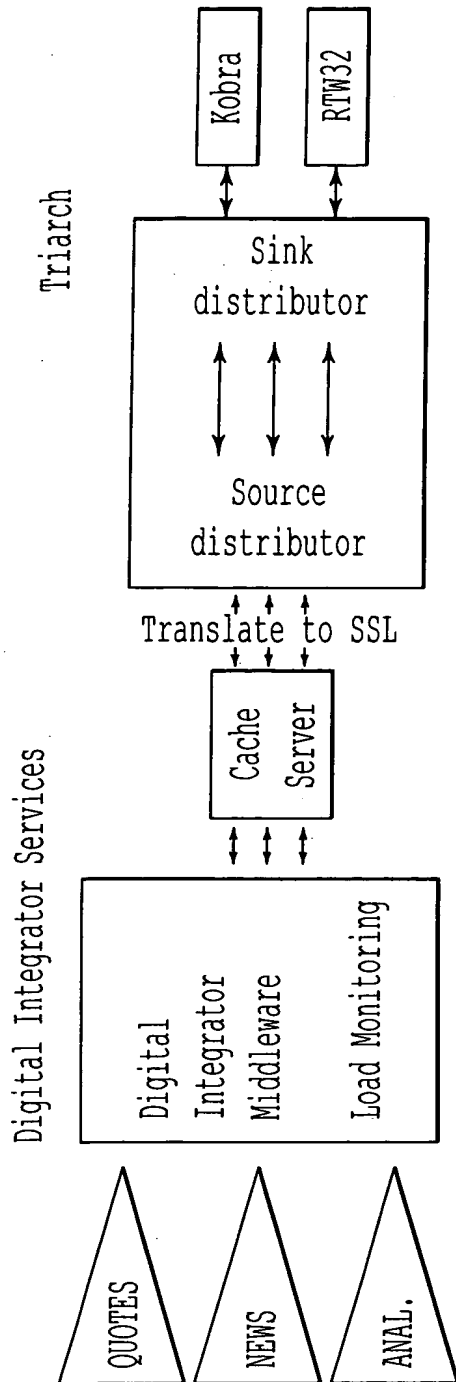


FIG. 6A

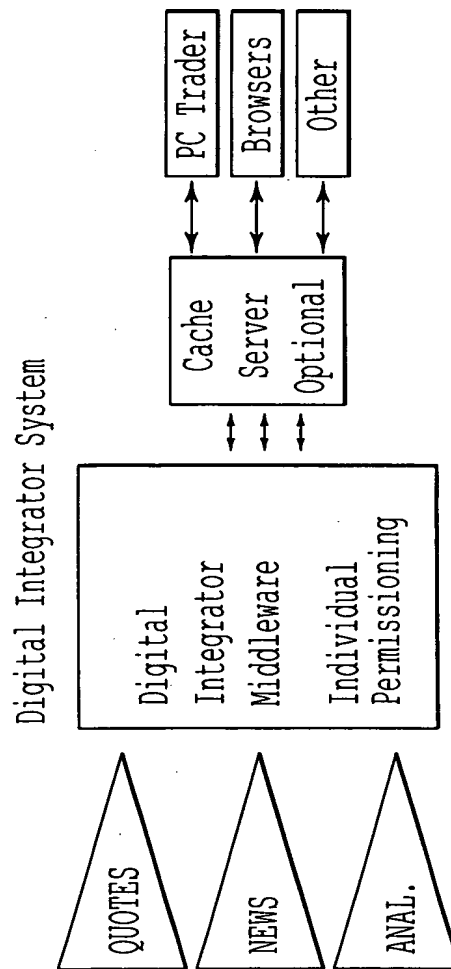


FIG. 6B

PC Trader
File Edit Search Page Window Help
Open Window Quick Keys Select Page

F2: MARKET SUMMARY F3: NEWS F4: BILLS F5: COUPONS F6: FOREX F7: CBOT FINANCIAL FUTURES F8: PC TRADER OLE F9: BULLET POINTS F10: EVANS REPO

TREASURY COUPONS

| Maturity | Coupon | B-BYield | B-Ask | B-Size | Last | BYield | Chg |
|----------|---------|----------|--------|--------|---------|--------|------|
| 2Y | 9/30/02 | 6.000 | 5.9390 | 15X11 | 100.03+ | 5.939 | +002 |
| 5Y | 5/15/05 | 6.750 | 5.8060 | 1X6 | 103.24 | 5.806 | +012 |
| 10Y | 8/15/10 | 5.750 | 5.7760 | 2X1 | 99.25+ | 5.776 | -01 |
| 30Y | 5/15/30 | 6.250 | 5.8250 | **X** | 105.28 | | -077 |

TREASURY BILLS

| Maturity | B-BYield | B-Ask | Size | Last | BYield | Chg |
|----------|----------|-------|-------|-------|--------|------|
| 3M | 1/11/01 | 6.229 | 45X10 | 6.04+ | 6.229 | -040 |
| 6M | 4/12/01 | 6.301 | 5X5 | 6.02+ | 6.301 | -030 |
| 1Y | 8/30/01 | 6.028 | 5X10 | 5.71+ | 6.028 | -020 |

FOREX-SPOT

| Symbol | Bid | Ask | Last 2 | Hi | Low |
|--------|----------|----------|----------|----------|----------|
| EURUSD | 0.8695 | 0.8701 | 0.8695 | 0.8760 | 0.8686 |
| GBPUSD | 1.4630 | 1.4638 | 1.4630 | 1.4656 | 1.4549 |
| USDJPY | 107.5800 | 107.6700 | 107.5800 | 108.0500 | 107.5900 |

STOCK INDICES

| Symb | Chng | Last | Last 2 | Last 3 | Last 4 | Volum |
|------|---------|----------|----------|----------|----------|-------|
| DJII | -106.84 | 10417.58 | 10417.48 | 10417.11 | 10417.48 | 3089 |
| DJOZ | -073 | 10505.0 | 10510.0 | 10505.0 | 10510.0 | |
| IQ X | -55.08 | 3110.98 | 3112.37 | 3114.33 | 3114.63 | |
| NDOZ | -54.00 | 3150.00 | 3148.00 | 3147.00 | 3145.00 | 116 |
| IN X | -4.49 | 1365.47 | 1365.61 | 1365.61 | 1365.63 | |

Bullet Points

[10/11/00 15:57:00]
EURO-DOLLAR: Pair recovering off its worst levels of the
Nasdaq trades withing 20 points of flat, arguably a pos
trader mentions the pair seems heavy at the figure, how
a decent offer in place.

CBOT-EUREX

| Symb | Hi | Low | Bid | Ask | Size | Last | Time | Chng |
|------|---------|---------|---------|--------|--------|---------|-------|------|
| TYOZ | 100.25+ | 100.14 | | | 0X0 | 100.18 | 13.59 | +05+ |
| ZNOZ | 100.21+ | 100.14+ | 100.19+ | 100.20 | 20X314 | 100.19+ | 14.56 | +07 |
| USOZ | 99.16 | 99.00 | | | 0X0 | 99.06 | 14.00 | +01 |
| ZBOZ | 99.11 | 99.00 | | | 0X0 | 99.09 | 14.57 | +04 |

Real Time Headlines

BULLET: Correct previous item-Nasdaq off about 60 points, ...>
BULLET: EURO-DOLLAR: Pair recovering off its worst levels of.>
US TSYS END MIXED AS TRADERS EYE SUPPLY, STOCKS/ENERGY PRICES>
BULLET: US Agency FNMA reports following distribution on...>
BULLET: LOOK AHEAD : U.S. event calendar for Thursday kicks...>
BULLET: STOCKS: Of note, Bridge carrying a statement from...>
BULLET: Fed country risk exposure survey shows surge in bank.>
BULLET: Fed country risk exposure survey shows surge in bank.>
Market News International Menu of European Features<MNI&EURL>
BULLET: Fed officials say the labor mkt might not be as.....>

Real Time Headlines

MARKET SUMMARY (F2)

1:00 PM, 10/11

FIG. 7

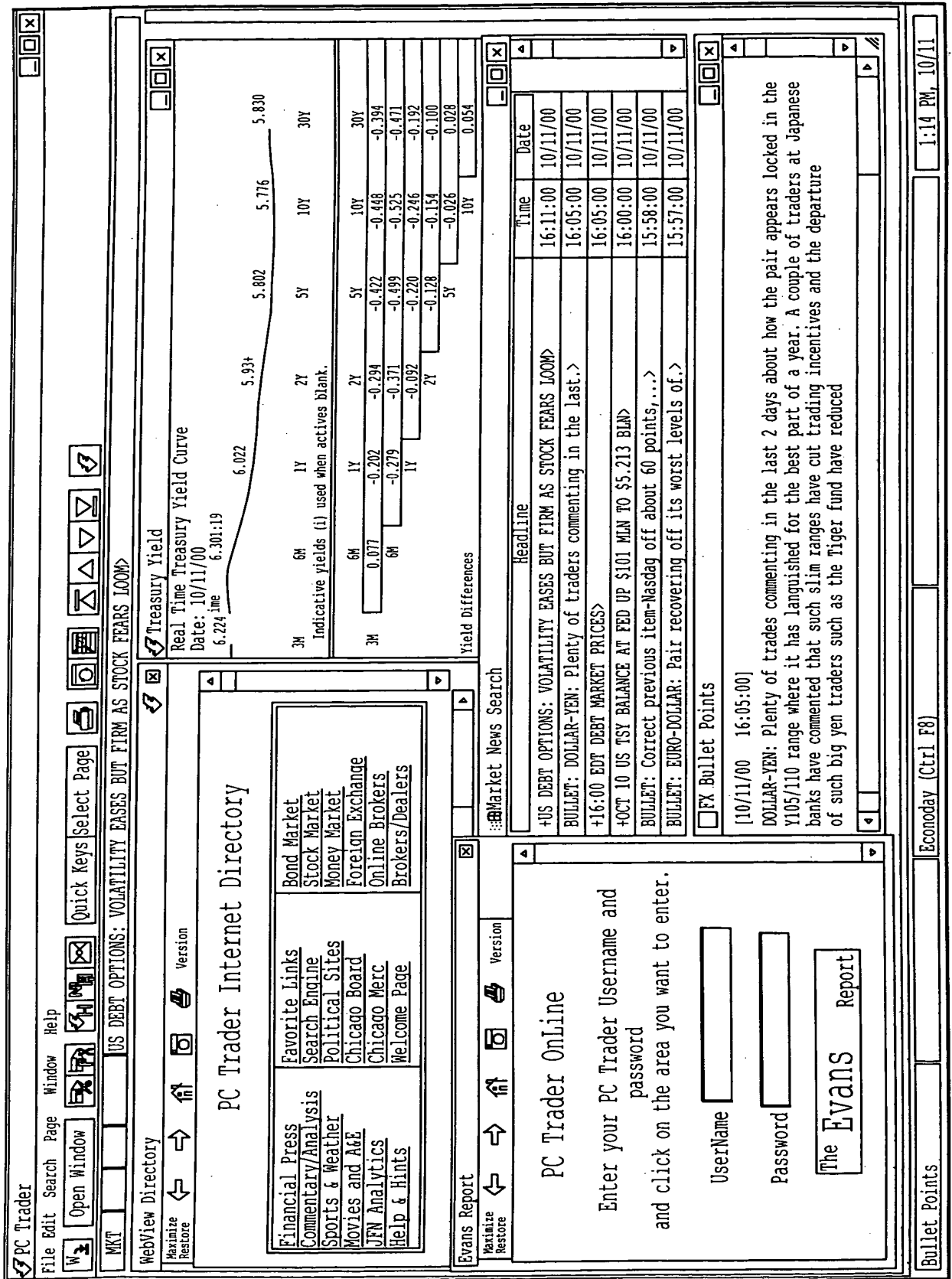


Figure 10

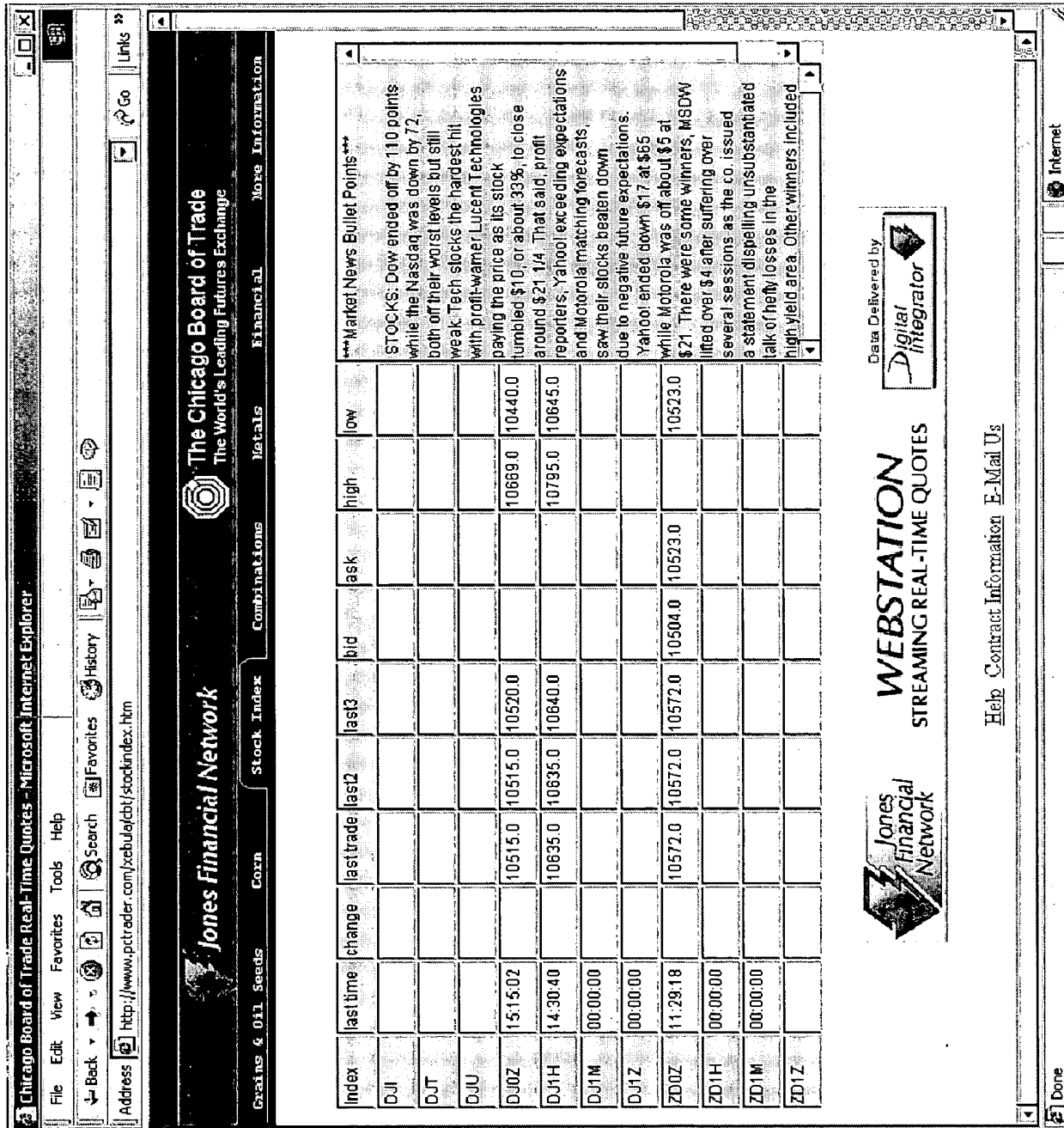


Figure 11

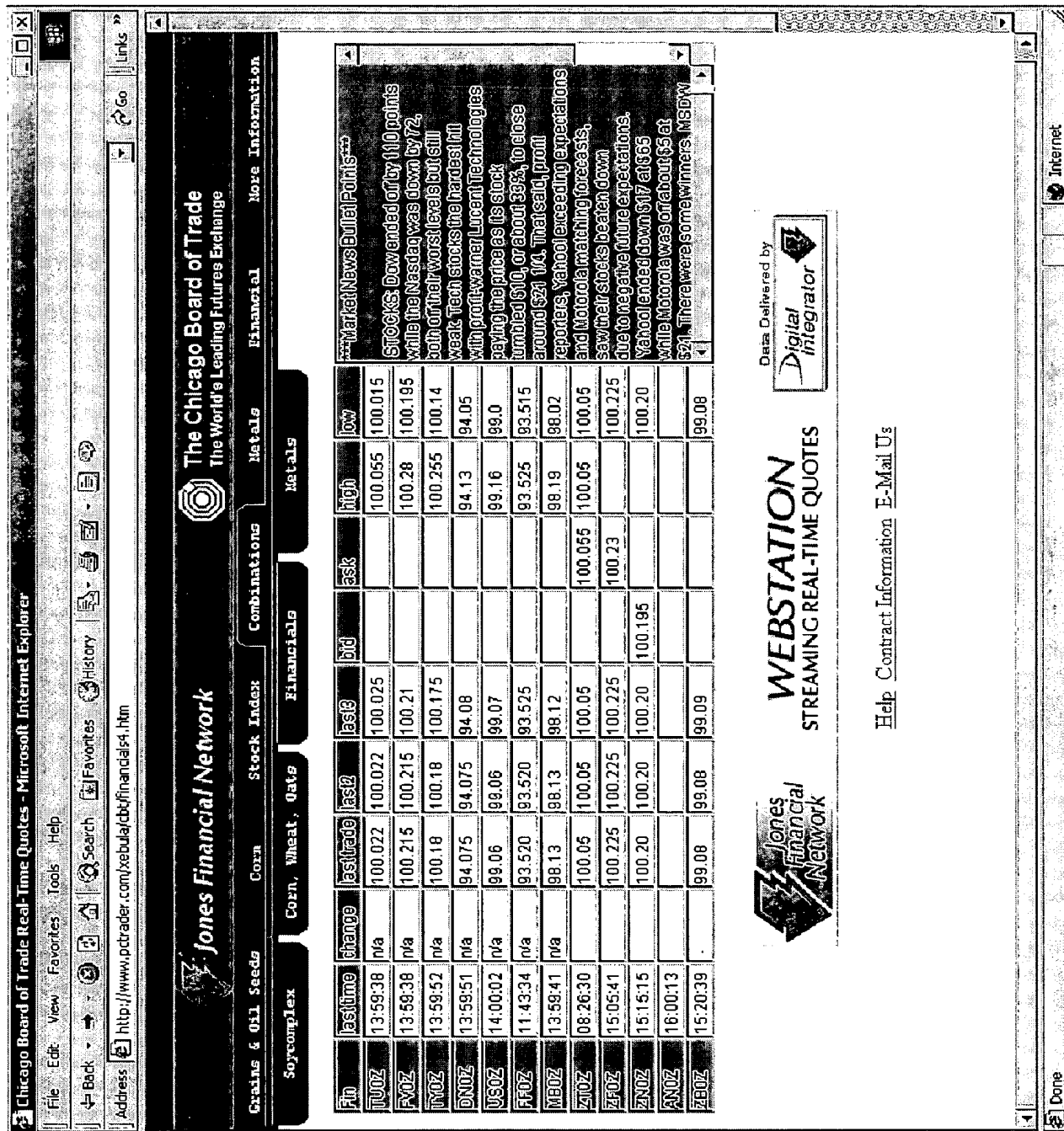


Figure 12

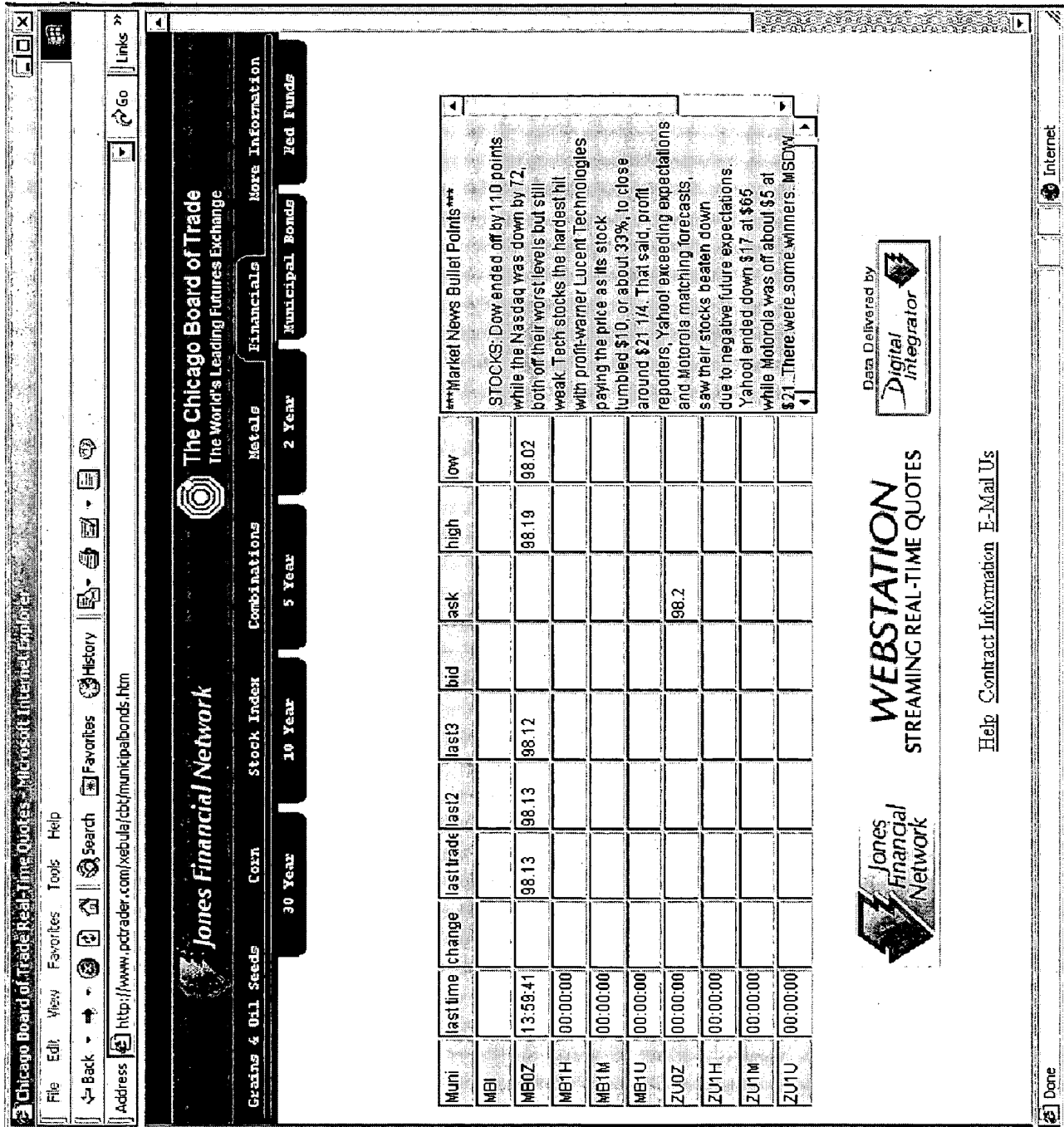


Figure 13

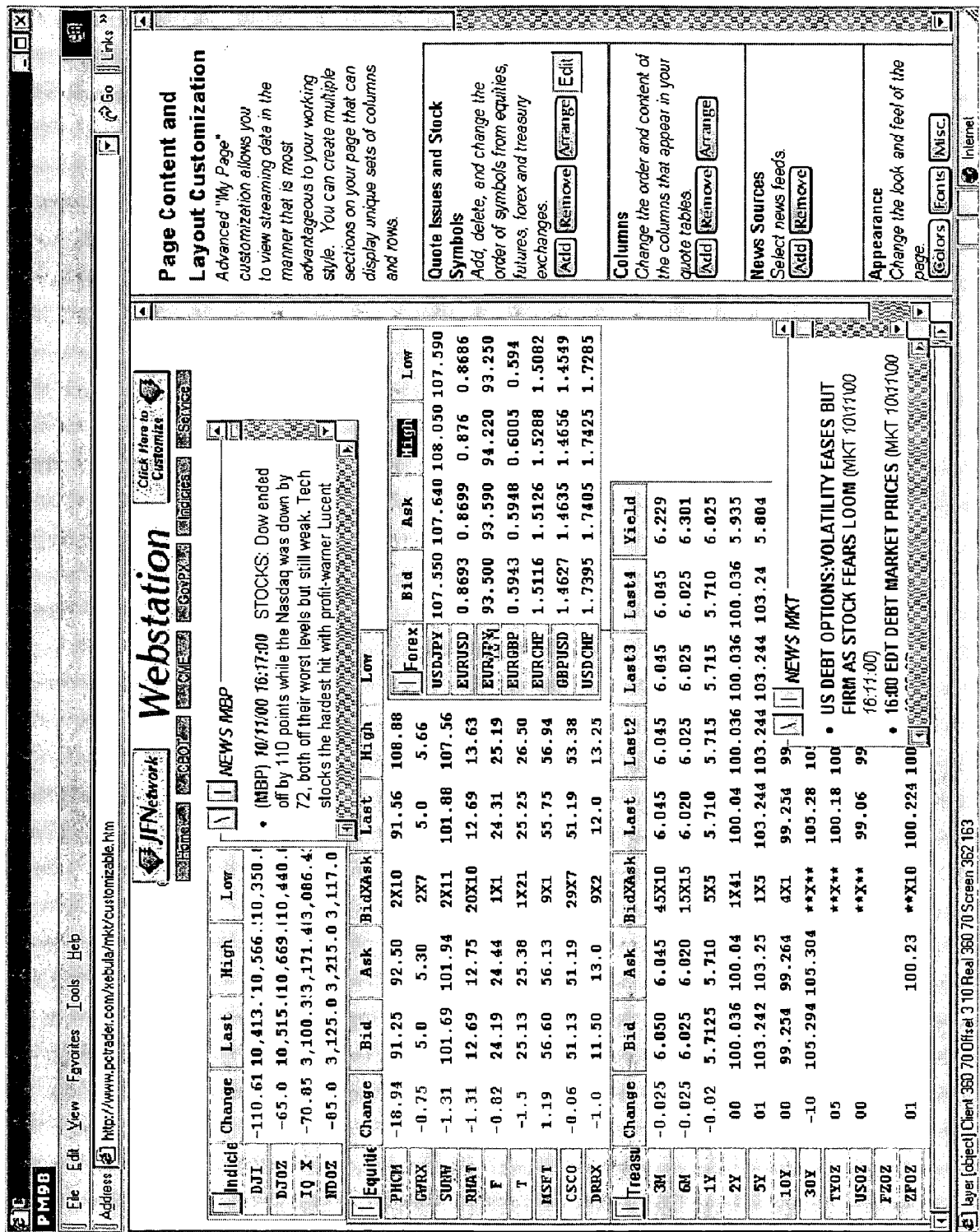


Figure 14

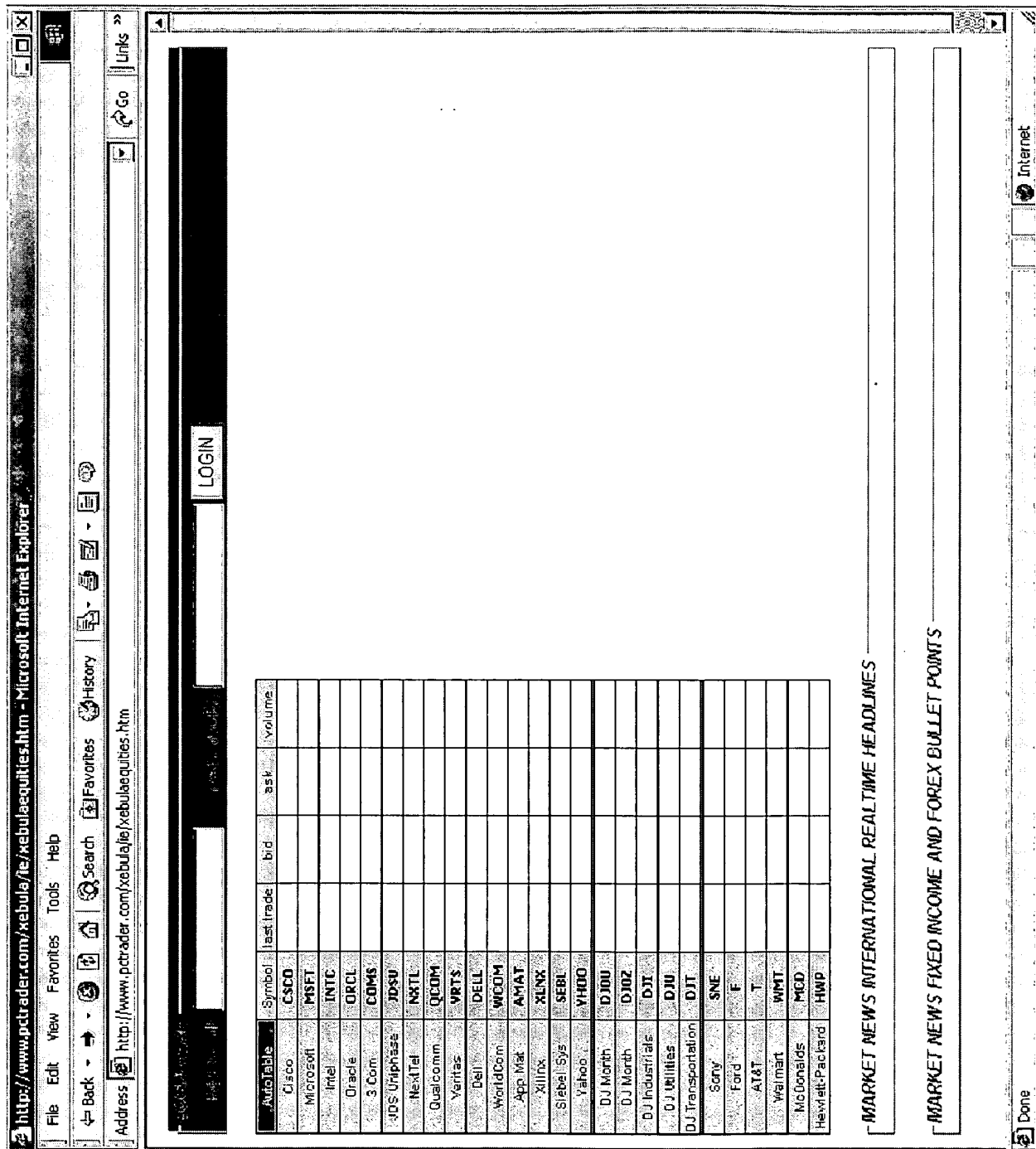


Figure 15

http://www.pctrader.com/xebula/bk/xebulapw.htm - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address http://www.pctrader.com/xebula/bk/xebulapw.htm

BK NEWSWIRES

- Economy up 5.5% in first quarter. "Slowdown continues..."
- High grade spreads widen sharply on WorldCom news.
- Tys curve inverts by 2.0 bps to -58.2 from -56.2. Look our below. See comments at RichCheap.com.
- AllBenchmarks.com publishes new index for bellweather issues.
- Butterflies: traders prepare for supply in 5/10/20.
- Tech stocks: IPO market heats up for midlevelware stocks.
- RichCheap.com: high yield bonds on NYSE look attractive.
- Thirty-eight trading systems sign up on first day.
- Agency spreads are narrowest in 90 days.

Login Here

Username

Password

| CBT | Last | Chg | High | Low | Close | Time |
|------|------|-----|------|-----|-------|------|
| USOU | | | | | | |
| TYOU | | | | | | |
| DNOU | | | | | | |
| FYOU | | | | | | |
| TUOU | | | | | | |
| Spnd | | | | | | |
| NOB | | | | | | |
| TAG | | | | | | |

| Spot FX | Bid | Ask | High | Low |
|---------|-----|-----|------|-----|
| USDJPY | | | | |
| EURUSD | | | | |
| EURGBP | | | | |
| GBPUSD | | | | |
| EURJPY | | | | |

| Gpx | Coupon | Maturity | Bid | Ask | Last | Yield |
|-------|--------|----------|-----|-----|-------|-------|
| 2YR | | 5/31/02 | | | | |
| 5YR | | 5/15/05 | | | | |
| 10Y | | 2/15/10 | | | | |
| 30Y | | 5/15/30 | | | | |
| Spnd | Yield | Chg | | | Close | |
| 2/30 | | | | | | |
| 10/30 | | | | | | |

Done

[illegible]